

Considerations for BDCP Alternatives

Application to the BDCP

As a part of adopting the Bay Delta Conservation Plan (BDCP) and obtaining the necessary authorizations and permits under various laws and regulations, alternatives must be considered and evaluated. However, the requirements on the selection, screening and comparison of alternatives differ between these laws. The Endangered Species Acts (FESA/CESA), National Environmental Policy Act (NEPA), and the California Environmental Quality Act (CEQA) all have different levels of analysis and different purposes for reviewing alternatives. Other regulatory processes required to implement the BDCP may also contain the requirements for alternatives evaluation (such as required under Section 404 of the Clean Water Act) that do not necessarily overlap completely with FESA, NEPA, and CEQA. While it is desirable to analyze a manageable number (albeit a reasonable range) of alternatives, the underlying nature and scope of alternatives for each of the various regulatory processes may necessitate different alternatives evaluations. In order to present an alternatives analysis for each of these processes in a consistent manner, it is important to understand the different legal requirements of each of these environmental review and approval processes. The following memorandum presents the various alternatives analysis requirements and suggests possible alternatives to fit in some or all of these processes.

Requirements of Federal ESA

Under Section 10 of the ESA, an HCP must specify "what alternative actions to such taking the applicant considered and the reasons why such alternatives are not being utilized". Therefore, HCPs must describe **alternatives to take** of covered species and the reasons that these alternatives were rejected. There is no requirement in the ESA that the applicant must present alternatives to meet its proposed objectives separate from those alternatives that would avoid or limit the proposed taking of covered species. Therefore, alternatives that might have less effect to environmental resources other than the covered species does not have to be presented by the applicant as part of the HCP.

Two alternatives commonly included in the "Alternatives Analyzed" section of the HCP are:

- 1) any specific alternative, whether considered before or after the HCP process was begun, that would reduce such take below levels anticipated for the project proposal; and
- 2) a "no action" alternative, which typically means that no permit would be issued and take would be avoided or that the project would not be constructed or implemented.

This section should also present the applicant's reasons as to why these alternatives were not adopted. The typical reasoning for dismissal of alternatives relates to feasibility and may include economic considerations when the effects on the applicant would be significantly adverse or the alternative would

be considered economically infeasible. However, if economic considerations are the basis for rejecting alternatives, data supporting this decision must be provided “to the extent that it is reasonably available and non-proprietary”.

Just as the Services do not have the authority to dictate what constitutes the underlying project for which a take permit is being sought, they also do not have the authority to impose a choice among the alternatives analyzed in the HCP. The HCP sets forth a suite of **specific** actions proposed by the applicant to minimize and mitigate the take associated with the covered actions.

Requirements of NCCPA and CESA

The requirements of how alternatives are discussed in an NCCP and CESA are not as explicit as is required under Section 10 of the ESA. Section 2081 requires that the impacts of take be “minimized and fully mitigated”. Where there are various methods of achieving this obligation, “the measures shall maintain the applicant’s objectives to the fullest extent possible”. Thus, Section 2081 and NCCPA can be interpreted, consistent with Section 10 of the ESA, as requiring a discussion of alternatives that meet the applicant’s project objectives that also minimize and offset the impacts of take.

Requirements of NEPA

NEPA is triggered both by the U.S. Bureau of Reclamation’s action to adopt elements of the BDCP as well as the Services’ approval of the BDCP and issuance of a Section 10 Incidental Take Permit. NEPA requires analysis of reasonable project alternatives, informed and limited in scope by a project’s purpose and need statement. NEPA requires consideration of alternatives to the project as a whole. NEPA alternatives analysis is governed by the “rule of reason”, under which an environmental impact statement (“EIS”) must consider a reasonable range of alternatives that could accomplish the agency’s project objectives. NEPA additionally requires consideration of a “No Action” alternative. An EIS must present a proposed project’s environmental impacts and those of the alternatives in comparative form to facilitate evaluation by the decision maker and public.

The reasonableness of a range of alternatives depends on the nature of the proposal and the facts and circumstances of each project. An alternative is reasonable if practical or feasible under technical, economic, or common sense measures. An alternative may be reasonable even if not within the jurisdiction of the lead agency. Required alternatives include the following:

- “No Action” Alternative: The alternative that serves as a point of comparison to other alternatives’ environmental effects.
- Agency’s Preferred Alternative: The alternative the agency believes would fulfill its statutory mission and responsibilities, giving consideration to economic, environmental, technical and other factors.
- “Environmentally Preferable” Alternative: The alternative that causes the least damage to the environment and best protects natural and cultural resources.

- Other Alternatives: Other feasible alternatives that meet the project's purpose and need, based on technical and economic factors.

For an EIS on an HCP, the alternatives typically focus on alternative strategies to implement a conservation plan and obtain take authorization. Typical alternatives for an HCP EIS include:

- alternative conservation strategies (e.g., emphasis on controlling toxics and non-native species control with limited habitat restoration),
- alternative areas for conservation implementation (e.g., ocean conditions or harvest control actions),
- modified permit (e.g., shorter/longer permit duration),
- alternative covered species (e.g., listed species only),
- regulatory permitting of covered activities on a case-by-case basis.

Requirements of CEQA

CEQA is triggered both by DWR's adoption and implementation of the BDCP, as well as DFG's approval of the BDCP and issuance of a take authorization (most likely under the Natural Community Conservation Planning Act). Under CEQA an EIR must describe a reasonable range of alternatives to the proposed project that could feasibly attain **most** of the basic project objectives **and would avoid or substantially lessen any of the potentially significant environmental impacts of the proposed project**. It is important to note that unlike NEPA, CEQA does not require alternatives to the proposed action for comparison purposes. Rather, the identification of a significant adverse impact associated with the proposed project triggers the requirement for identifying an alternative that may result in a lesser environmental effects. There is no ironclad rule in CEQA governing the nature or scope of the alternatives to be discussed other than the "rule of reason." Alternatives that are remote or speculative, or the effects of which cannot be reasonably predicted, need not be considered. Alternatives may not be rejected merely because they are beyond an agency's authority, would require new implementing legislation, or would be too costly. In determining whether alternatives are feasible, Lead Agencies are guided by the general definition of feasibility found in CEQA: "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors. The No Project Alternative must also be analyzed in a Draft EIR. The EIR must briefly explain why any other alternatives considered for inclusion in the EIR were rejected.

Requirements of Section 404

Because the BDCP will involve activities that would discharge dredged or fill material into waters of the United States, a permit from the U.S. Army Corps of Engineers is required. As part of the evaluation to issue a permit under Section 404, the Corps must follow EPA's Section 404(b)(1) Regulations which, in part, require that the Corps (typically assisted by the applicant) to document that the permitted action is the "least environmentally damaging practicable alternative" (LEDPA). The alternatives analysis required to document the LEDPA involves an analysis of the various ways available to the applicant to

achieve the basic project purpose, considering financial, technical, and logistical factors, which would avoid or minimize the amount of fill into waters of the United States and not cause additional adverse environmental impacts.

Summary of Requirements

The following table summarizes the major attributes for alternatives under NEPA, CEQA, FESA and 404:

Law	Action alternatives				No action/No project
	Meet basic purpose and need/ project objectives	Be feasible	Avoid/reduce take	Avoid/reduce any significant project effects	
NEPA	X	X			X
CEQA	X	X		X	X
FESA	X	X	X		X
404	X	X		X	

Possible Alternatives for BDCP

Potential ESA Alternatives to take for the BDCP

As outlined above, the Federal Endangered Species Act requires the evaluation of alternatives to take within an HCP. Since the covered activities and impact analysis for the BDCP has not been fully developed defining potential alternatives to take is somewhat speculative at this time. Possible alternatives to take will be narrower than those considered in the EIR/S and may include the following:

- 1) Severely reduced or cease pumping alternative to eliminate take of aquatic species.
- 2) Isolate Facility West Tunnel Alignment to eliminate take of terrestrial species.

Potential Alternatives for the BDCP EIS/EIR

The BDCP EIR/EIS is providing NEPA/CEQA coverage for the HCP/NCCP, which includes the isolated conveyance facility and associated infrastructure. In addition to alternatives to consider differing conservation plan options, four conveyance configurations have been identified as part of the DHCCP program: IF east alignment, IF west alignment, through-Delta facilities, and no new facilities. The challenge for the BDCP is to craft conservation strategy alternatives that meet the applicant's goals and

objectives and to appropriately integrate the DHCCP alternatives. The following concepts might be considered for the BDCP EIS/EIR

Alternative Conservation Concepts

A wide variety of conservation strategy options can be developed that reflect a variation on the conservation focus or center around permit terms. The samples below are provided for illustrative purpose only and are not presented as recommendations for consideration.

- 1) **Other Stressors Alternative.** This Alternative would include an isolated facility and new intake facilities and a focus on actions that address toxics and non-native species control. There may be some limited habitat enhancement projects (like in the Liberty Island/Yolo bypass area) but the majority of money and effort would be directed towards controlling pollution (such as upgrading wastewater treatment) and reducing predation and habitat degradation by invasive species.
- 2) **Narrow Permit Alternative.** Developing an alternative that only includes listed species and those species that are imminently likely to be listed with a conservation strategy targeted to directly benefiting those covered species and/or a permit with a shorter duration (30 years) is a realistic alternative.

Reduced Export Concept

A reduced exports alternative is another concept that will require consideration. At issue is how such an alternative is characterized and the degree to which it is analyzed. As discussed above, it may be considered as an alternative to take in the HCP. However, for the EIS/EIR the concept of reduced exports would not qualify as a stand-alone alternative. The concept of reduced exports could be an element of a reduced conservation strategy alternative recognizing that if exports are reduced, then the overall plan conservation objectives would be proportionately scaled back. The BDCP purpose and need would not be met; thus this alternative would not need to be considered in detail. Additionally, a reduced exports concept could be a part of the no project alternative, which is required to be fully analyzed in the EIR/S.

DHCCP Alternative Alignment Options

There are various ways the DHCCP conveyance options can be incorporated into the EIS/EIR alternatives. It seems likely that the east alignment will be incorporated into the BDCP and thus becomes the proposed/preferred alternative. The west alignment could be substituted for the east alignment within the BDCP conservation plan for consideration as a NEPA alternative and if it would reduce one or more potentially significant impacts associated with the east alignment (such as reduced loss of agricultural land, less impact to terrestrial species) it would also satisfy the requirements of CEQA. To consider the through delta option might require developing a new conservation strategy alternative with compatible conservation action that would be complimentary with maintaining south delta exports. Whether this type of alternative would meet the program goal and objectives would dictate the degree to which this option is discussed in detail. Whether the no new facilities option would be considered in an alternative conservation strategy option is questionable but it would be an element in the No Action/Project alternative.

No Action/No Project Alternative

This required alternative under both NEPA and CEQA would represent continued operation under the existing regulatory scheme and have the following characteristics:

- None of the conservation measures currently proposed as part of the BDCP would be implemented, meaning no habitat improvement actions, no conveyance modifications, and no reduction in other stressors in the Delta.
- No take permit would be granted through the BDCP.
- Ecosystem conditions in the Delta would likely worsen.
- Export restrictions contained in Federal BOs would continue.
- Export reliability would continue to deteriorate.